

**ABSTRACT OF THE DISCLOSURE**

A crossbar switch is disclosed. The crossbar switch comprises a plurality of input sorting units and a plurality of merge and interleave units. Each input sorting unit is capable of receiving from a respective device an access request to any one of a plurality of physical memory devices. Each merge and interleave unit is capable of arbitrating among competing access requests received from any of the input sorting units, selecting one of the competing access requests and forwarding the selected request for implementation on a respective memory device. Also disclosed is method implemented by the crossbar switch.